



**ASSOCIATION of  
GOVERNMENTS**

**Main Office**

818 West Seventh Street

12th Floor

Los Angeles, California

90017-3435

t (213) 236-1800

f (213) 236-1825

[www.scag.ca.gov](http://www.scag.ca.gov)

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## MEETING OF THE

# GOODS MOVEMENT TASK FORCE

**Wednesday, May 21, 2008**

***9:30 a.m. – 11:30 a.m.***

### **SCAG Offices**

**818 West 7<sup>th</sup> Street, 12<sup>th</sup> Floor**

**Conference Room Riverside A**

**Los Angeles, CA 90017**

**213.236.1800**

**Video Conference & Teleconference  
will be available**

### **Video Conference Location**

**Riverside SCAG Office**

**3600 Lime Street, #216**

**Riverside, CA 92501**

If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Mike Jones at 213.236.1978 or [jonesm@scag.ca.gov](mailto:jonesm@scag.ca.gov)

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# GOODS MOVEMENT TASK FORCE

## AGENDA

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*“Any item listed on the agenda (action or information) may be acted upon at the discretion of the Committee”.*

*Pg.*

- |     |  |   |    |            |
|-----|--|---|----|------------|
| 1.0 | <b><u>CALL TO ORDER &amp; PLEDGE OF ALLEGIANCE</u></b>   | Hon. Art Brown,<br>Chair                                      |    |            |
| 2.0 | <b><u>PUBLIC COMMENT PERIOD</u></b><br>Members of the public desiring to speak on an agenda item or items not on the agenda, but within the purview of this committee, must fill out a speaker's card prior to speaking and submit it to the Staff Assistant. A speaker's card must be turned in before the meeting is called to order. Comments will be limited to three minutes. The Chair may limit the total time for comments to twenty (20) minutes. |   |    |            |
| 3.0 | <b><u>REVIEW and PRIORITIZE AGENDA ITEMS</u></b>   |   |    |            |
| 4.0 | <b><u>CONSENT CALENDAR</u></b>   |   |    |            |
| 4.1 | <u>Approval Items</u>  |   |    |            |
|     | 4.1.1 <u>Minutes of February 20, 2008 Meeting Attachment</u>   |   |    |            |
| 5.0 | <b><u>INFORMATION ITEMS</u></b>  |   |    |            |
| 5.1 | <u>Downtown Los Angeles Freeway System Study</u><br><br>Overview of Downtown Los Angeles Freeway System Study<br><b>Attachment</b>   | Mr. Lee Ward,<br>Iteris, Inc.                                 | 12 | 30 minutes |
| 5.2 | <u>Regional Air Cargo Forecasts</u><br><br>Overview and update of regional air cargo forecasts<br><b>Attachment</b>  | Mr. Mike Armstrong,<br>SCAG                                   | 30 | 20 minutes |
| 5.3 | <u>Truck Parking in the SCAG Region</u><br><br>Overview of truck parking issues in the SCAG Region   | Mr. Jeffrey Spencer,<br>Caltrans, Office of<br>Goods Movement | 34 | 15 minutes |

# **GOODS MOVEMENT TASK FORCE**

## **AGENDA**

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### **6.0    STAFF REPORT**

### **7.0    COMMENT PERIOD**

### **7.0    NEXT MEETING**

The date of the next Goods Movement Task Force meeting will be June 18, 2008.

### **8.0    ADJOURNMENT**

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**GOODS MOVEMENT TASK FORCE  
of the  
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**February 20, 2008  
Minutes**

---

**THE FOLLOWING MINUTES ARE A SUMMARY OF ACTIONS TAKEN BY THE GOODS MOVEMENT TASK FORCE. AN AUDIOCASSETTE TAPE OF THE ACTUAL MEETING IS AVAILABLE FOR LISTENING IN SCAG'S OFFICE.**

The Goods Movement Task Force held its meeting at the SCAG office in Los Angeles. The meeting was called to order by the Honorable Lou Bone, Acting Chair, City of Tustin.

**Members Present**

Steve Adams	City of Riverside
Lou Bone	City of Tustin
Tanya Love	RCTC
Diane Morales	Caltrans, District 8
Steve Smith	SANBAG
Cheryl Leising	SCAG
LeAnn Garcia	Grand Terrace
Ron Gus	Intermodal West, CTA
Robert Farley	Metro
Greenwald, Peter	South Coast AQMD
Peter Okurowski	UP
Viggen Davidian	Iteris, Inc.
Wesley Hong	SCAG
Bernie Lopez	South Coast AQMD
Robert Machuka	Metro
Joseph Alcock	SCAG
Morrissey, Sam	Wilbur Smith & Associates
Juan Camacho	SCAG
Annie Nam	SCAG
Akiko Yamagami	SCAG
Dominic Meo III	Everyready Marine
Barry Engleberg	OCTA
Nancy Pfeffer	Network Public Affairs, Gateway Cities COG
Llewellyn Miller	SCAG
Philbert Wong	Metro
Vin Kumar	Caltrans, District 7
Kathleen Wanda	Caltrans, District 7
Mike Jones	SCAG

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**GOODS MOVEMENT TASK FORCE  
of the  
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**February 20, 2008  
Minutes**

---

**1.0 CALL TO ORDER**

The Hon. Lou Bone, Acting Chair, called the meeting.

**2.0 PUBLIC COMMENT PERIOD**

There were no public comments.

**3.0 REVIEW and PRIORITIZE AGENDA ITEMS**

**4.0 CONSENT CALENDAR**

**4.1 Approval Item**

4.1.1 July 18, 2007 Minutes

A **MOTION** was made to approve the Consent Calendar.

The **MOTION** was **SECONDED** and **UNANIMOUSLY APPROVED**.

**5.0 INFORMATION ITEMS**

**5.1 Multi-County Goods Movement Action Plan**

Sam Morissey, Wilbur Smith Associates, introduced the draft Multi-County Goods Movement Action Plan (MCGMAP), describing it as the master plan for goods movement in the Southern California. The MCGMAP was intended to be used as a guide in the preparation of state, regional, and local transportation plans. Mr. Morissey noted that the plan was driven by a unique partnership of local, county, and regional transportation agencies. The Plan also, for the first time, presented regional modeling of freight facilities across county and jurisdictional boundaries. He also noted the Plan used a market segmented approach looking at how goods move through the region and the modes of travel that are used. Mr. Morissey said the Plan respects agency roles and authorities and works within those roles. He then noted the areas covered by the study and the participants involved. This presentation would focus on Los Angeles County.

The MCGMAP was built on six implementation principles. Firstly, the Plan is a guideline for local, regional, and state planning. Secondly, it promotes a

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**GOODS MOVEMENT TASK FORCE  
of the  
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**February 20, 2008  
Minutes**

---

simultaneous and continuous investment in the goods movement system as well as the mitigation of environmental impacts associated with goods movement. Thirdly, the MCGMAP suggests that both users and beneficiaries of the system must pay their fair share. Fourthly, the Plan says that institutional structures to manage projects as well as revenue collection and distribution must be defined as needed. Fifthly, a clear public benefit must be demonstrated by projects to receive public funding. Lastly, the Plan focuses on the need to separate goods movement infrastructure on sensitive receptors like schools or residences.

Mr. Morissey then provided a background for regional goods movement and its scale and discussed the numerous current and future challenges accompanying freight movement including congestion, community, public health, and environmental impacts, and funding challenges. He then discussed how the challenges would be addressed to meet the goals of the MCGMAP. He mentioned numerous approaches including the separation of modal markets and provided brief descriptions of intermodal movements in the region. The MCGMAP considers the maximization of on-dock rail as the strategic method to address the identified 40% of goods that leave the region by minimizing local truck drayage to near-dock and off-dock yards to minimize local impacts. To address goods moving both within and out of the region expressly by truck, the MCGMAP suggests addressing the general purpose highway system. To address transloaded intermodal goods and goods having at least one truck trip within the region, innovative strategies such as inland staging areas, separated corridors, cleaner fuels and vehicles, and warehouse clustering around inland ports should be used. The amount of goods moving through the region offer some potential solutions to funding challenges that could be addressed through targeting state and federal fair share contributions and through user fees. The MCGMAP recognized minimal opportunity to meet funding challenges by targeting general purpose users. By targeting specific users or beneficiaries, such as regional truck markets, and focusing on innovative strategies, some opportunities exist to meet funding challenges.

Based on the market segmented system, the MCGMAP was able to illustrate a potential future system though it did not address required environmental and community mitigation measures. The future system would include expanded mainline rail capacity, road-rail grade separations, dedicated freight guideway systems from the Ports to inland areas, potential inland ports, and expansions of ports of entry along the U.S.-Mexico border. To meet these goals, the MCGMAP outlined four sets of actions to move toward the goals. These actions were 1)

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**GOODS MOVEMENT TASK FORCE  
of the  
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**February 20, 2008  
Minutes**

---

acceleration of regional environmental mitigation through region-wide approaches as well as project-specific mitigation measures, 2) relief of congestion and mobility, 3) improvement of operational efficiencies, and 4) development of equitable public and private funding strategies by maximizing the region's fair share of federal and state funds and obtaining private sector contributions consistent with the benefits or impacts being derived from the system.

The MCGMAP also considered numerous freight growth scenarios and potential system alignments in bundles that were modeled for the study. The MCGMAP had a substantial outreach component to numerous stakeholders and resulted in a number of core mandates. The mandates very closely mirrored the actions of the MCGMAP. The mandates from the stakeholders were to mitigate environmental, community, and health impacts associated with goods movement, promote the safe and efficient movement of all transportation modes and reduce congestion, ensure the economic well-being of the State was maintained, and secure the region's fair share of public and private funds for investment in the transportation system.

The draft MCGMAP has two lists of projects and strategies including regional and county-level projects. There are over \$50 billion in total costs, of which approximately \$2 billion is currently committed. In Los Angeles County, over \$41 billion in projects were identified covering a number of different categories. Mr. Morrissey then said four sets of next steps existed. The first set of includes dealing with environmental and community impacts. Various stakeholders have joined together in the Southern California National Freight Gateway Cooperation Agreement to develop specific sets of feasible actions to accelerate the implementation of strategies contained in various air quality and emission reductions plans that are within the scopes of the respective project partners. The group will also work to initiate activities to generate public or private funds to support efforts to implement the strategies. The MCGAMP project partners have undertaken an environmental justice analysis and outreach for the Plan's projects.

The next set of actions is focused on partnerships and advocacy. This includes continued dialogue among regional stakeholders and the inclusion of the MCGMAP strategies and actions into other regional plans as appropriate. Regional stakeholders will also support and propose legislation that will provide funding mechanisms and improves mobility and facilitates the goals of the MCGMAP without undermining local community priorities and qualities of life. They will also work to help develop dedicated federal and state goods movement funding sources.

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**GOODS MOVEMENT TASK FORCE  
of the  
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**February 20, 2008  
Minutes**

---

They will also continue to seek support from the logistics and goods movement industry throughout project development phases.

Project partners will also initiate a study to investigate the trends between industry supply chain trends and port and trade-related transportation patterns, specifically expected growth and secondary and tertiary truck trips. The partners also plan to initiate a Regionally Significant Transportation Investment Study (RSTIS) to evaluate the feasibility of implementing a dedicated freight guideway system from the Ports to inland areas inclusive of non-freeway implementation. Finally, the group will work to obtain the region's fair share of funding from Proposition IB funds (TCIF) as well as other sources as they become available. The partners will also continue to pursue potential user fees and establish structures to manage user fees and revenues that are acceptable to public and private stakeholders.

Mr. Morrissey then updated the status of the MCGMAP and anticipated release of the final MCGMAP in April 2008 with approval by stakeholder Boards shortly after.

A question regarding SCAG's Comprehensive Regional Goods Movement Action Plan and Implementation Strategy was asked. Annie Nam, SCAG, answered that the Comprehensive Regional Goods Movement Action Plan was an effort to address the next steps from the MCGMAP including looking at system-wide connectivity issues and project phasing to look at implementation efforts. The RFP was released and was available online.

Mr. Peter Greenwald asked about what was meant by Board approval for the MCGMAP timeline. Mr. Morrissey answered that it meant adoption by the respective agencies of the MCGMAP. He said that the Boards were approving the recommendations of the MCGMAP but not the projects specifically. Mr. Greenwald voiced concern that environmental mitigations were non-specific while the projects were defined. Mr. Morrissey answered that the Board approval was the acceptance and recognition of the need to simultaneously and continuously address the environmental aspects of the projects in the MCGMAP while realizing that some of the projects were identified outside the scope of those activities in terms of role and responsibility. He said that follow-up studies should flesh out environmental mitigations corresponding to projects. Mr. Peter Greenwald asked if rail electrification was looked at. Mr. Morrissey said that it was not looked at expressly as part of the MCGMAP. He said it was considered as part of the regional freight



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**GOODS MOVEMENT TASK FORCE  
of the  
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**February 20, 2008  
Minutes**

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corridor analysis for alternative technology. Mr. Mike Jones referred Mr. Greenwald to SCAG's draft 2008 RTP which includes a section on rail electrification for more information.

Acting Chair, Hon. Lou Bone, asked about the expectations of the Lossan route. Mr. Morissey noted issues related to the route and possible expansion that was illustrated. Acting Chair, Hon. Lou Bone discussed potential capacity constraints resulting on the Lossan route if expansion occurred.

**5.2 Missing Link Truck Study**

Mr. Viggen Davidian, Iteris, Inc., began by giving an update on the progress of the project, noting it was 50% complete and on-schedule to be finished by the June 30, 2008. Mr. Davidian began by describing the I-710 gap and the potential for the construction of a tunnel to close the gap between the I-710 freeway and the I-210 freeway based on previous study. He emphasized that the purpose of the study was to evaluate the full effects of the connection and its various options, specifically in relation to truck impacts.

Mr. Davidian then described the technical approach of the study and highlighted the area being studied. He noted other studies being used to support the effort and noted that land use, population patterns, and transportation movements would be key inputs to identifying the effect on truck movements of completing or not completing the tunnel. He also stated that development of a consensus of study findings through stakeholder outreach would be important.

He said that the next step in the technical approach would involve developing two sets of criteria, an overall subregional assessment and the consideration of the effectiveness of alternative improvement recommendations. He showed some of the potential criteria. He said the study would look at overall area-wide improvement in mobility, vehicle-miles-traveled (VMT), and vehicle-hours-traveled. While the study will be focused on one facility, the impacts for the subregion will be identified for both autos and trucks. Performance criteria of the RTP and their relevance to the study will be considered. The next step involved establishing the existing conditions which was done by maximizing the use of existing data along with the collection of traffic counts and inputs from local sources. The purpose was to map major trip generators, identify major trucking

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**GOODS MOVEMENT TASK FORCE  
of the  
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**February 20, 2008  
Minutes**

---

issues, and utilize travel forecasting and modeling techniques. Understanding truck travel patterns is very important in developing plans and recommendations. Mr. Davidian said that major trucking attractions and productions were being looked at in the study area, along with visual sources, to identify potential problem areas that might be affected from the closure of the gap. He then showed current truck volumes on local roadways and freeways along with a forecast model simulation of traffic with the completion of the I-710 tunnel. There was heavy correlation with the I-5 and SR-14 south to the SR-60, I-5, and I-710. There was not as much correlation with the I-210 corridor. These initial findings were being validated. He then said that arterials with the potential to carry the highest volumes of truck traffic with the gap closure were being identified. He then showed roadway volume segments.

Mr. Davidian said the next steps of the project involved looking at future baseline conditions. Scenarios for the future baseline include a no-projects option (assuming the completion of SCAG regional baseline projects and the non-closure of the I-710 gap), will be looked to identify hotspots, capacity deficiencies, and truck impacts on the regional and subregional system. The study will look at two future scenarios with the closure of the I-710 gap. One scenario will consider the closure of the gap and completion of all the RTP projects, while the other will consider the closure of the gap with only the RTP baseline projects. Based on the scenarios, potential mitigation measures will identified and recommendations will be both short term and long term recommendations and multi-modal.

Mr. Steve Smith asked if one of the scenarios being tested might include the High-Desert Corridor project. Mr. Davidian responded that one of the scenarios being modeled would include all planned RTP projects.

Ms. Kathleen Wanda asked which links on which routes would experience increased truck traffic assuming the gap closure, specifically the I-210. Mr. Davidian said the modeling was not complete but initial results indicated that the I-210 freeway just east of the connection would experience additional trucks but not the extent previously believed. Ms. Wanda asked about one slide the indicated a 7% increase in traffic. Mr. Davidian said that segment was actually north of the connection, not east. Ms. Wanda then asked if any increases were seen for the I-5. Mr. Davidian said the I-5 would see reductions with the gap closure. Mr. Davidian said more analysis would occur in the future.

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**GOODS MOVEMENT TASK FORCE  
of the  
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**February 20, 2008  
Minutes**

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**5.3     Goods Movement Air Quality Study**

Mr. Jeff Ang-Olson, ICF International, reminded the group that he had previously presented the draft Task 1 Report for the study. ICF had completed subsequent public workshops to get feedback on the Task 1 Report and study was being completed. Mr. Olson said the objective of the study was to identify potential emissions reductions strategies for all modes of goods movement. Costs, emissions reductions, and cost effectiveness for each strategy were being estimated as well as considering feasibility issues, timelines for implementation, acceptability to stakeholders. Ultimately, the goal is to prioritize strategies and determine the amount of emission reductions that can be achieved for a given amount of public investment. This is being done to support the achievement of air quality standards for the region, provide input to future RTP and AQMP updates, and provide some information for project level environmental mitigation.

Mr. Olson said that there were three major tasks for the study. The Task 1 Report now finalized, was a detailed analysis of individual goods movement emission reductions strategies which analyzed over forty strategies. He then mentioned that public workshops and meeting with industry representatives and other stakeholders were conducted. Finally, the final task of the study, an action plan designed to synthesize the information from the Task 1 Report and make recommendations and suggest priorities for public investment in goods movement emission reductions strategies. The action plan will focus primarily on trucks and railroad emissions and less on ocean-going vessels and port equipment which are being addressed by CARB and the Ports and are less relevant to SCAG's daily planning work. Mr. Ang-Olson then discussed the forecasted trends goods movement emissions based on the assumption of the adoption and implementation of current and planned rules and regulations. He also noted the goods movement portion of overall emissions.

The first focus of the plan was trucks, divided into three categories (light heavy-duty, medium heavy-duty, and heavy heavy-duty) and their current and forecasted emissions. Particulate matter and NO<sub>x</sub> forecasts for trucks by model year were also discussed, noting the most polluting trucks per capita and overall. Mr. Ang-Olson then noted that a number of emission reduction strategies, and their cost effectiveness in 2010 and 2020 in terms of emissions reduced per dollar of investment, were examined in the Task 1 Report. Overall, Mr. Ang-Olson said that one of the most cost effective strategies overall for 2020 would be truck

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**GOODS MOVEMENT TASK FORCE  
of the  
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**February 20, 2008  
Minutes**

---

replacement, particularly the replacement of model year 1999 – 2006 trucks with trucks meeting the 2010 emissions standard. He went on to talk about some the challenges of truck repowering noting that they would not be as effective and do not present a feasible future strategy. Retrofit devices were recognized to be proven, effective, and cost-effective strategies for emissions reductions. Alternative fuels were also discussed and noted to reduce emissions. Operational strategies, such as virtual container yards, incident management systems, and expansion of PierPass, to reduce truck VMT, congestion, and associated emissions were also considered. While cost effective, their reduction in overall emissions is not significant. Some infrastructure projects, such as dedicated truckways and the expansion of on-dock and near-dock rail can provide significant reductions but the cost is very high. Based on overall effectiveness, a number of hypothetical strategy packages for given dollar amounts were developed. Some of these were presented. Some the implementation challenges were discussed. This included industry fragmentation, costs to trucking companies, retrofitting trucks which primarily serve the region, and potential of limited penetration for voluntary programs.

Mr. Ang-Olson then discussed rail locomotive emissions for 2020, noting that the majority of emissions come from line-haul locomotives. He also stated that Union Pacific (UP) and Burlington Northern Santa Fe (BNSF) had signed a Memorandum-of-Understanding (MOU) with the Air Resources Board ensuring that the entire operating fleet average in Southern California will meet the EPA's Tier 2 standards by 2010. The EPA has proposed new Tier 3 (around 2012) and Tier 4 (around 2015-2017) standards for locomotives which, if implemented, will have dramatic effects in emissions reductions. Acceleration of these clean locomotives would result in significant reductions. Other potential locomotive emissions reductions were then discussed including engine repowering and engine rebuilds. Locomotive retrofits exist but are not yet available and their feasibility is in question. Other alternatives include hybrid switcher locomotives, idle reduction devices, rail electrification (which has operational limitations), and infrastructure expansions. Mr. Ang-Olson then presented some hypothetical implementation strategies and their associated challenges for locomotive emissions reductions and the cost effectiveness of each scenario.

A comment was made suggesting the use of trucks only at night would lead to a significant reduction in emissions and congestion and was virtually cost free. Mr. Ang-Olson said that some congestion reduction strategies such as PierPass expansion and incident management were looked at and emissions reductions

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**GOODS MOVEMENT TASK FORCE  
of the  
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**February 20, 2008  
Minutes**

---

strategies were based on SCAG's 2020 model data which suggested a lowering of emissions as expected congestion will be lower according to forecasts. This means that the benefits of some congestion reduction strategies would be lower in the future versus the present. He added that there uncertainty existed as to the relationship between congestion and speed and emissions at certain speed thresholds with emissions potential rising with increases in speed at near free flow levels. The speaker then continued to emphasize the need to act immediately to address emissions reductions before 2020. Mr. Ang-Olson noted that there might be potential to shift some trucks to night-only movements, but operational and other constraints may prevent a shift of all trucks to such schedule. He noted that the study was focused on a longer-term solution.

Ms. Kathleen Wanda asked about the effectiveness of road-rail grade separations. Mr. Ang-Olson noted that grade separations do have emissions benefits but are done primarily for safety and mobility reasons. If considered solely to address emissions reductions, grade separations are near the bottom of the list. However, suggested grade separations for the region offer numerous other benefits.

Mr. Peter Greenwald said that the benefits are regional and not localized. He noted that localized impacts near goods movement facilities are significant. He said that since the report will be used to prioritize expenditures of public funds, it needs consider the benefits in specific locations to controlling emissions around goods movement facilities such as railyards. He also suggested adding information from AQMD's MATES III analysis. He then asked about the additional analysis on electrification of the Alameda Corridor. Mr. Ang-Olson said ICF essentially estimated the portion of the region's railroad mainline emissions that occur on the Alameda Corridor based on the length and density of trains on each segment and assumed that the emissions from that portion of the mainline for the region would be eliminated. Incremental increases needed for power for trains moving through the corridor were calculated. He said detailed operational issues were not examined closely. Mr. Greenwald noted that benefits might exist that extend beyond the regional benefits that extend beyond reducing the mainline emissions.

Mr. Ron Gus commented that by new mandates, older trucks will be eliminated by 2021 and require 2010 technology or newer. Mr. Ang-Olson noted that this was a challenge during the study.

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**GOODS MOVEMENT TASK FORCE  
of the  
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

**February 20, 2008  
Minutes**

---

Mr. Steve Smith asked about the percentage reduction of fleet inventory that will exist in 2020. For the truck emissions inventory, Mr. Ang-Olson said that the \$100 million scenario would result in approximately a 10% reduction in NO<sub>x</sub> and nearly 15% for particulate matter. Mr. Smith asked if this was viewed as significant. Mr. Greenwald responded that every possible reduction was needed but without further information did not want to comment.

Mr. Ernie Lopez asked if time-shifting of rail was considered in the cost calculation for the electrification scenario. Mr. Ang-Olson said this was not done and this would be difficult given current capacities on the Alameda Corridor.

A speaker asked if maintenance issues were considered in the study. Mr. Ang-Olson said this has been a criticism of the types of models used for this study.

**5.0     STAFF REPORT**

SCAG Staff mentioned that the RTP comments were to be addressed by Staff and noted the key strategies related to goods movement found in the Plan. The upcoming Faster Freight Cleaner Air Conference was mentioned as well as an upcoming TRB conference in Irvine.

**6.0     COMMENT PERIOD**

Mr. Okurowski encouraged people sign up for a tour of the BNSF Hobart Yard as part of the Faster Freight Cleaner Air conference. A comment was made concerning the possible consideration of combining the Goods Movement Task Force with the Maglev Task Force. Acting Chair Hon. Lou Bone noted that TCC Chair, Hon. Alan Wapner, was looking at reorganizing the committees. Mr. Okurowski said that if committees were combined, enough time should be given to thoroughly discuss issues brought to the Task Force. Acting Chair Hon. Lou Bone asked about the possibility of discussing proposals from American Maglev and General Atomics concerning freight movement.

**7.0     ADJOURNMENT**

Acting Chair Hon. Lou Bone adjourned the meeting.

The next committee meeting will be held on **Wednesday, July 18, 2007 at the SCAG office in Los Angeles.**

# REPORT

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**DATE:** May 21, 2008

**TO:** Goods Movement Task Force

**FROM:** Mike Jones, SCAG Staff, (213) 236-1978, jonesm@scag.ca.gov

**SUBJECT:** Downtown Los Angeles Freeway System Study

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## **BACKGROUND:**

In 2006, SCAG initiated the Downtown Los Angeles Freeway System Study to study and evaluate the adequacy of the existing freeway system serving Downtown Los Angeles in light of shifts in regional traffic patterns, increasing number of trucks, congestion at interchanges, and recent changes in Downtown land uses, specifically new residential communities and new regional destination points. The purpose of the Downtown Los Angeles Freeway Study was to identify near-term, cost-effective strategies to improve the freeway operations and access in the ring of freeways surrounding Downtown Los Angeles. Building on previous project development efforts of Caltrans and LADOT to improve the Downtown Los Angeles freeway system, the study provides an overview of relevant projects and suggests next steps for feasible projects in terms of implementation based on field observation, data collection, and agency consultation.

Mr. Lee Ward of Iteris, Inc. will provide an overview on the results of the Downtown Los Angeles Freeway System Study.

# The Downtown Los Angeles Freeway Study

## Conditions and Potential Improvements

A region-wide approach is needed to manage congestion in the Downtown Los Angeles Freeways. Nonetheless, there is the opportunity to address bottlenecks and other operational conditions to allow the use of the full capacity of the existing system.

The purpose of the Downtown Los Angeles Freeway Study is to identify near-term, cost-effective strategies to improve the freeway operations and access in the ring of freeways surrounding Downtown Los Angeles. It builds on previous project development efforts of Caltrans and LADOT to improve the Downtown Los Angeles freeway system. It provides an overview of relevant projects and suggests next steps for feasible projects—in terms of implementation based on field observation, data collection, and agency consultation.



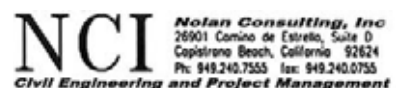
Although there has been considerable study of the freeway network surrounding Downtown Los Angeles, few projects have been implemented. Balancing the need for improvement and the extensive review/approval process, this Study screened potential projects to identify those which could be undertaken in the near-term, and those which have potential but need further work to advance to consideration for implementation.

### Key Observations:

- **Downtown Los Angeles freeways will remain congested**
  - Forecasts for the year 2030 show increased volumes.
  - Regional (pass-through) traffic
- **Region-wide approach needed to manage congestion and mobility**
  - Transit improvements and expansion
  - Land use policy
- **Opportunities to address freeway bottlenecks and operational deficiencies**
  - Optimize system capacity by eliminating bottlenecks
  - Develop feasible and cost-effective projects and programs



**Banerjee &  
Associates**

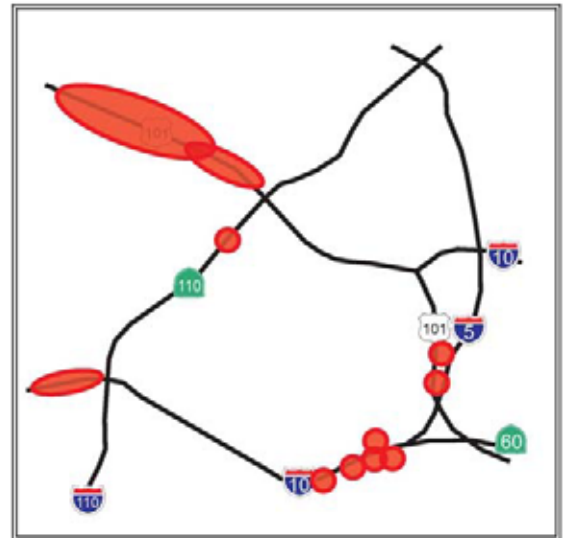




# Priority Projects Identified

To prepare for next stage of project development

## Restripe EB I-10 Collector Road to SB I-110 and Grand Ave.



*Priority Project Locations*

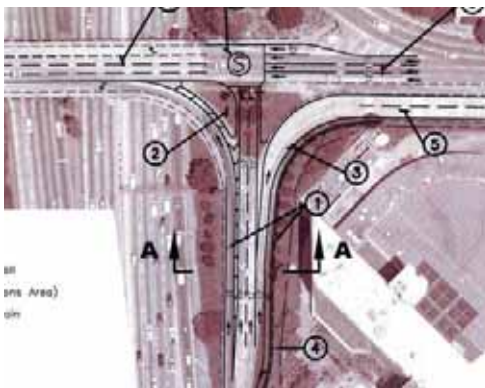
## Ramp Improvements to Accommodate Trucks



- NB US-101 on-ramp at Whittier Blvd.
- EB I-10 on-ramp at Alameda Street
- WB I-10 off-ramp to 8th Street
- WB I-10 off-ramp at Mateo Street
- EB I-10/SR-60 on-ramp at Porter Street
- NB US-101 off-ramp at 4th Street
- EB I-10 on-ramp at Olympic Boulevard

*Truck at the Porter Street EB I-10 on-ramp*

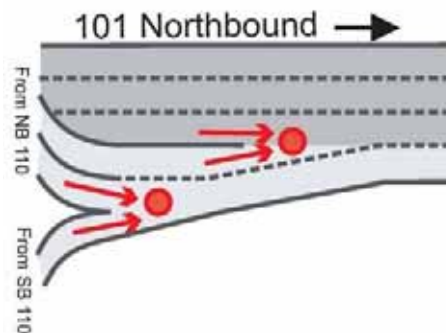
## 3rd Street Off-Ramp at Northbound SR-110 Improvements



*Recommended 3<sup>rd</sup> Street Off-Ramp Improvements*

## Northbound US-101 Auxiliary Lane

- From SR-110 to Glendale Blvd.
- From Glendale Blvd. to Vermont Ave.



*Conflicts caused by SR-110 Merging with Northbound US-101*

## The Downtown Los Angeles Freeway Study



Conditions and  
Potential  
Improvements

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## Technical Team



Banerjee &  
Associates



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## Downtown Historical Perspective

- Freeways designed and constructed in the 1950s and 1960s



- Downtown Building Heights Capped at 150 feet Until 1957

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## Recent Downtown Freeway Improvements

- ❑ Seismic Retrofit
- ❑ Northbound SR-110 Auxiliary Lane Between 9<sup>th</sup> Street and 11<sup>th</sup> Street
- ❑ US-101 Realignment Through Downtown
- ❑ Southbound I-5 to southbound 110 ramp-merge area
- ❑ I-5 Repavement Project
- ❑ Auxiliary Lane - SB SR-110 Between 8th Street and WB I-10 Transition (Funded)

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## Downtown Resurgence

- ❑ Since 1999 over \$11 billion invested in Downtown
- ❑ Over 8,000 new residences and 10,000 new residents in past 10 years
- ❑ New venues attract over 17 million visitors annually



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## Downtown Transportation Use

Traveling Through Downtown Los Angeles  
Each Weekday

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>❑ Bus daily trips                             <ul style="list-style-type: none"> <li>■ Local: 225,000</li> <li>■ Express: 30,000</li> <li>■ Metro Rapid: 70,000</li> </ul> </li> <li>❑ Rail Weekday Boardings                             <ul style="list-style-type: none"> <li>■ Red Line: 150,000</li> <li>■ Blue Line: 80,000</li> <li>■ Gold Line: 22,000</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>❑ Freeway daily trips                             <ul style="list-style-type: none"> <li>■ I-10: 300,000</li> <li>■ SR-110: 300,000</li> <li>■ SR-101: 200,000</li> <li>■ I-5: 200,000</li> </ul> </li> </ul> |
|--|--|

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## Future Downtown Growth

SCAG projections from 2000 to 2030

- Downtown Los Angeles will grow:
  - ↑ 23% residents
  - ↑ 15% employees
- The SCAG Region will grow more:
  - ↑ 38% residents

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## Transit Expansion Connecting to Downtown

- Gold Line Eastside Extension (2009)
- Exposition Line (2010)
- Metro Rapid Expansion



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## Focus of The Study

- Downtown Freeway System
  - Mainline
  - Ramps
  - Surface Street Access to/from Ramps
- Identify Feasible, Cost-Effective Improvements to Downtown Freeway System



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## Data Collection

- ❑ Vehicular volumes
  - Truck Volumes
- ❑ Collisions
- ❑ Geometry
- ❑ Areas of reoccurring congestion
- ❑ Field observation of issues:
  - Tight curves
  - Lane drops
  - Merging and Weaving

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## Key Observations

- ❑ Downtown Los Angeles freeways will remain congested
  - Forecasts for the year 2030 show increased volumes.
  - Regional (pass-through) traffic
- ❑ Region-wide approach to manage congestion and mobility
  - Transit improvements and expansion
  - Land use policy
- ❑ Opportunities to address freeway bottlenecks and operational deficiencies
  - Optimize system capacity by eliminating bottlenecks
  - Develop feasible and cost-effective projects and programs

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## Defining Three Tiers of Improvements

- ❑ Based on Implementation Timeframe

❑ Tier 1: Short-Term

2 to 5 Years

❑ Tier 2: Mid-Term

6 to 10 Years

❑ Tier 3: Long-Term

10+ Years

Implementation

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## Tier 1 Projects (1-5 Years)

### Freeway Egress and Ingress Maintenance and Monitoring

- Signage
- Markings
- Signals
- Pedestrian Safety
- Detection Loops
- Transit Access



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## Priority Projects

### Priority projects to prepare for next stage of project development

#### Tier 2 (6-10 Years)

- Add NB US-101 Auxiliary Lane from SR-110 to Glendale Blvd.
- Restripe EB I-10 Collector Road to SB I-110 and Grand Ave.
- Ramp Improvements to Accommodate Truck Access

#### Tier 3 (10+ Years)

- Add NB US-101 Auxiliary Lane from Glendale Blvd. to Vermont Ave. (in phases)
- Realign and Signalize 3<sup>rd</sup> St. Off-Ramp at NB SR-110

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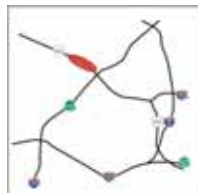
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## Priority Projects

### Northbound US-101 Auxiliary Lane from SR-110 to Glendale Boulevard



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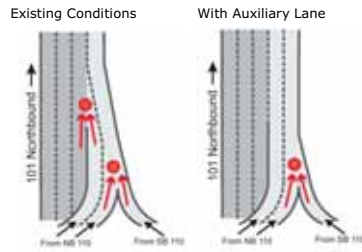
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## Northbound US-101 Auxiliary Lane

### □ The Issue:

- Inside merge at SR-110 to NB US-101



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## SR-110 to Northbound US-101 Connector



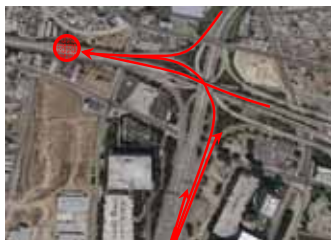
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## Four-Level Interchange

- A single bottleneck affects several components of the interchange

- 110 SB to 101 NB
- 101 NB Mainline
- 110 NB Mainline
- 110 NB to 101 NB
- 110 NB to 101 SB



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## Northbound US-101 Connector from Northbound SR-110

- Congestion from upstream merging



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## Northbound US-101 Auxiliary Lane Benefits

- Northbound Auxiliary Lane Benefits in 2030 PM Peak Hour:
  - Interchange Throughput
    - 8,777 vehicles to 10,165 vehicles (↑16%)
  - Average Travel Time for Northbound SR-110 Ramp:
    - 216.5 seconds to 102.7 seconds (↓53%)
  - Lane Change Conflicts
    - 8,520 Conflicts to 3,865 Conflicts (↓55%)

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## Simulation of 2030 PM Peak Hour



Existing  
Configuration

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## Simulation of 2030 PM Peak Hour



With Auxiliary Lane

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## Simulation of 2030 PM Peak Hour

Existing Configuration



With Auxiliary Lane



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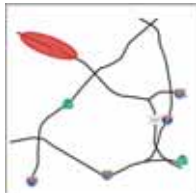
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## Priority Projects

Northbound US-101 Auxiliary Lane from  
Glendale Boulevard to Vermont Avenue



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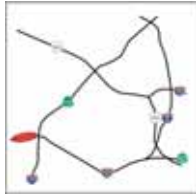
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## Priority Projects

Restripe EB I-10 Collector Road to SB I-110 and Grand Ave.



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## Eastbound I-10 to Southbound I-110

□ Current Striping includes three lane drops

- Hoover Street
- I-110 Connector
- Grand Avenue



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## Eastbound I-10 to Southbound I-110

□ Abrupt Merging Reduces Capacity of the I-110 Connector



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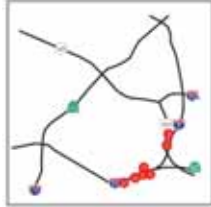
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## Priority Projects

### Ramp Improvements to Accommodate Trucks



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### Ramp Improvements to Accommodate Trucks

- ❑ Remove Sharp Curves
- ❑ Widen Ramps
- ❑ Improve Turn Radii
- ❑ Realign Ramps
- ❑ Signalize Ramps



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### Westbound I-10 Off-Ramp at Mateo Street



- ❑ Improve Right Turn Radii



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## Westbound I-10 Off-Ramp at Mateo Street

- ❑ Tight Turn Radius Causes Conflicts with Opposing Lanes



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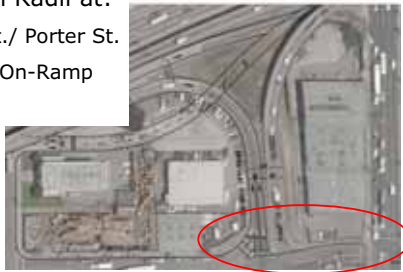
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## Eastbound I-10/SR-60 On-Ramp at Porter St.

- ❑ Narrow Turn Radii at:
  - Alameda St./ Porter St.
  - Porter St./ On-Ramp



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## Eastbound I-10/SR-60 On-Ramp at Porter St.

- ❑ Narrow Turn Radii

Turning from Alameda St.



Entering On-Ramp



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## Eastbound I-10 On-Ramp at Olympic Blvd.

- Potential Improvements to Reduce Conflicts
  - Curb Radii
  - Reconfigure On-Ramp



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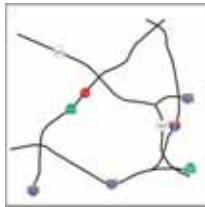
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## Priority Projects

### 3rd Street Off-Ramp at Northbound SR-110 Improvements



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### 3rd Street Off-Ramp at Northbound SR-110

- Potential Improvement:
  - Separate the Westbound Traffic
  - Eliminate weaving across 3rd Street to Northbound Beaudry Avenue



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## Key Observations

- ❑ Downtown Los Angeles freeways will remain congested
  - Forecasts for the year 2030 show increased volumes.
  - Regional (pass-through) traffic
- ❑ Region-wide approach to manage congestion and mobility
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  - Land use policy
- ❑ Opportunities to address freeway bottlenecks and operational deficiencies
  - Optimize system capacity by eliminating bottlenecks
  - Develop feasible and cost-effective projects and programs

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## Next Step for Projects

- ❑ Project Development Process
  - Funding
  - Design
  - Environmental
  - Construction
- ❑ Implementation Time Varies Depending on Complexity of Project
- ❑ Agencies
  - Caltrans
  - Los Angeles Department of Transportation (LADOT)

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## Other Projects

Other Projects have been identified but were not deemed to be the first priority

Following is a list

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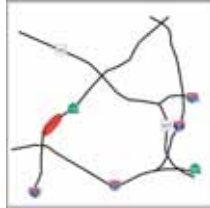
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## Tier 1 Projects: Funded Project

- Auxiliary Lane - SB SR-110  
Between 8th Street and WB I-10  
Transition



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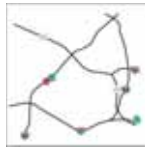
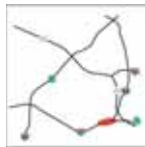
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## Tier 2 Projects

- Eliminate WB SR-60 Inside  
Merge to WB I-10
- James Wood Blvd (9th Street)  
Exit Ramp Improvements



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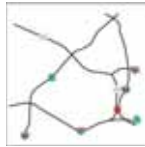
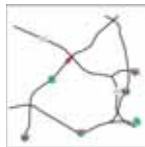
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## Tier 2 Projects

- NB SR-110 Temple Street Off-  
Ramp Relocation
- SB US-101/I-5 7th Street Ramp  
Improvements



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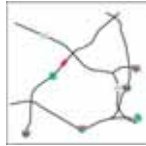
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## Tier 2 Projects

- Improvements for SB SR-110 lanes between 3rd Street and Wilshire Boulevard



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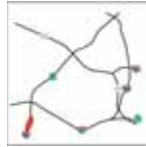
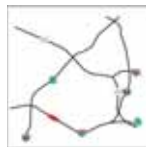
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## Tier 3 Projects

- WB I-10 Lane Drop Elimination at Los Angeles Street
- I-110 Harbor Transitway Terminus to Figueroa Street



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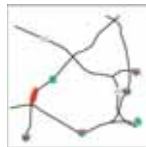
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## Tier 3 Projects

- EB and WB I-10 transitions to SR-110 NB and Pico Boulevard



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# REPORT

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**DATE:** May 21, 2008

**TO:** Goods Movement Task Force

**FROM:** Mike Jones, SCAG Staff, (213) 236-1978, jonesm@scag.ca.gov

**SUBJECT:** Regional Air Cargo Forecasts

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## **BACKGROUND:**

In 2003, air freight accounted for 26 percent (\$523 billion) of total U.S. merchandise trade with over 8 million tons moving on nonstop international air segments through U.S. gateways. Commodities transported by air are generally higher in value per ton than those moved by other freight modes and the SCAG region is a major hub for trade with Pacific-rim countries. The region serves as a major origin and destination market for merchandise goods. SCAG's 2008 RTP forecasts approximately 8.3 million tons of air cargo for the region's airports in 2035.

Mr. Michael Armstrong, SCAG, will provide an overview of air cargo forecasts for the SCAG region.




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Air Cargo in the SCAG Region (tons)									
YEAR	Burbank	John Wayne	Long Beach	Los Angeles	Ontario	Palm Springs	Palmdale	Regional Total	Percent Growth (%)
2000	37,036	18,119	54,192	2,247,833	511,758	144	-	2,869,082	3.88%
2001	34,368	16,146	58,357	1,955,665	462,006	101	-	2,526,643	-11.94%
2002	43,089	15,646	58,607	1,962,354	547,461	82	-	2,627,239	3.98%
2003	47,634	15,406	55,850	2,021,339	571,892	113	-	2,712,234	3.24%
2004	49,633	20,152	57,050	2,115,314	605,211	104	-	2,847,464	4.99%
2005	52,867	24,073	54,298	2,137,188	576,791	75	-	2,845,292	-0.08%
2006	57,577	24,180	49,947	2,103,082	544,600	27	-	2,801,199	-1.55%
2007	53,753	22,330	51,652	2,077,527	532,865	19	-	2,785,033	-0.57%

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## RADAM Air Cargo Demand Forecasts—Primary Inputs

- 2035 Demographic Forecasts
- Cargo Generation Rates for Express, Freight, E-commerce and Mail Cargo
- Truck Travel Times to Airport Terminals
- Belly and All-Cargo Airport Capacities
- Aircraft Ops by Type and Destination
- Intermodal and Warehousing Land Costs
- Contractual Agreements

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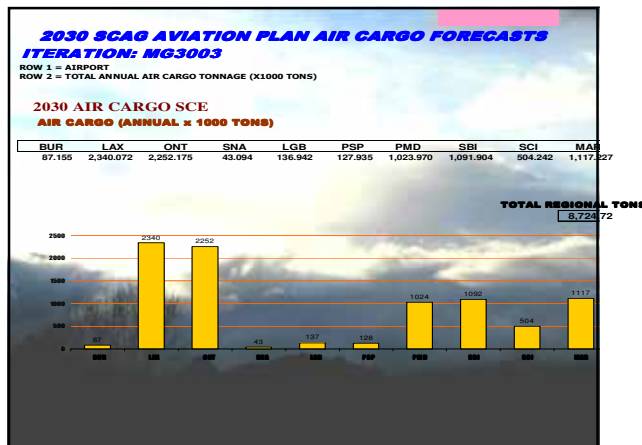
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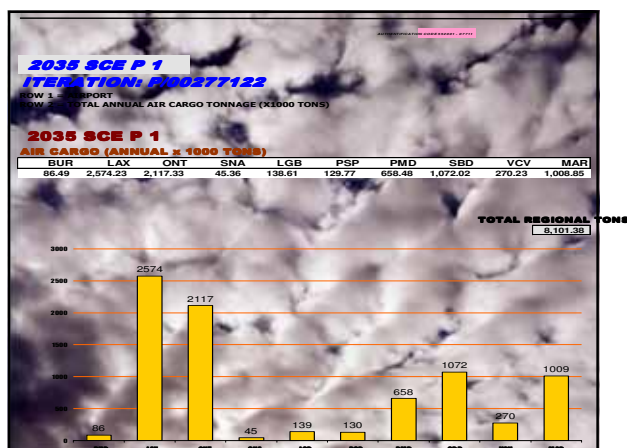
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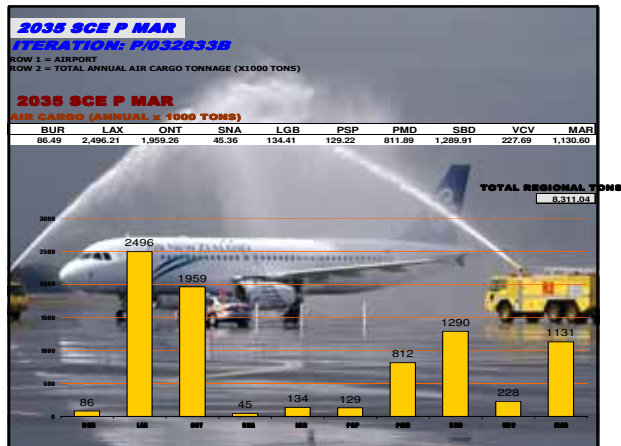
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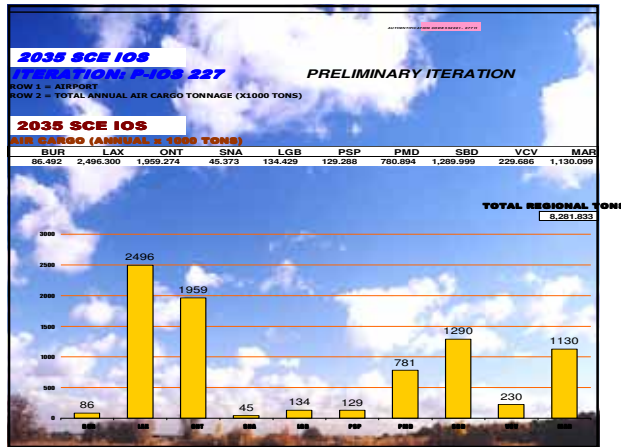
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# REPORT

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**DATE:** May 21, 2008

**TO:** Goods Movement Task Force

**FROM:** Mike Jones, SCAG Staff, (213) 236-1978, jonesm@scag.ca.gov

**SUBJECT:** Truck Parking in the SCAG Region

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## **BACKGROUND:**

In a major survey of illegal truck parking, nearly half of the drivers surveyed reported rarely or almost never finding available parking at public rest areas. Fewer than half of the truck drivers indicated that they frequently or almost always find any of the following features at truck parking facilities: parking convenient to the highway, parking facilities with the needed amenities, parking that allows adequate time, parking with enough room to drive in and out, and parking spaces used only by trucks. Many drivers simply park along roadsides and in communities to comply with Federal hours of service rules. Many negative impacts are realized including but not limited to pavement damage, air quality impacts from idling, various safety impacts, and maintenance issues with hazardous or bio-waste, and safety and health impacts to adjacent communities.

Mr. Jeffrey Spencer, Caltrans, will present an overview of, and discussion on, connectivity of STAA routes to designated land uses and examples of the problems associated with industrial zoned land, system-wide planning, impact fees, and how local agencies could be responsible for the cost of upgrading these facilities to STAA standard.